



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,443	09/29/2003	Richard A. Falcioni	6674P001	4131

8791 7590 10/16/2006

BLAKELY SOKOLOFF TAYLOR & ZAFMAN  
12400 WILSHIRE BOULEVARD  
SEVENTH FLOOR  
LOS ANGELES, CA 90025-1030

EXAMINER

WANG, JIN CHENG

ART UNIT	PAPER NUMBER
----------	--------------

2628

DATE MAILED: 10/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/674,443

Applicant(s)

FALCIONI, RICHARD A.

Examiner

Jin-Cheng Wang

Art Unit

2628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 9/8/06 & 7/27/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 21-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 21-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Amendment*

Applicant's submission, filed 9/8/2006 and 7/27/2006, have been considered. Claims 10-20 have been canceled. Claims 1, 21, 29, 34, 38, and 41-42 have been amended. Claims 1-9 and 21-42 are pending in the present application.

### *Response to Argument*

Applicant's arguments, filed 9/8/2006 and 7/27/2006, have been considered but are not moot in view of the new ground of rejection.

Claim 21 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The claim 21 recites the claim limitation of “**a plurality of regions that abut one another thereby eliminating intervening spaces to form a solid block.**” This new claim limitation was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

For example, in Paragraph 0030 of applicant's specification, it is stated, “there may be 19 different features needed to compose all the letters of...a template or matrix is created based on the entire set of features, by **abutting the features** to each other in such a way that each feature can be **visually distinguished** from the others. *This template may then be overlayed with a*

Art Unit: 2628

*smaller, second matrix (e.g., a 12-zone matrix)*...Each character is indicated by a respective selection of one or more (and in most cases, no more than two) regions or zones in a matrix.” In Paragraph 0038, it is stated, “almost all of the assembled features are ‘stretched’ so that they abut one another, eliminating the intervening spaces and thereby resulting in a stretched matrix 208 in Fig. 2. Note also that the stretched features become the boundaries of the regions in the matrix 208 in such a way that most of the regions line up in rows and columns.” However, Fig. 2 shows 19 features. *The 19 features, rather than the selection regions*, have been stretched so that they abut one another, eliminating the intervening spaces. Moreover, according to applicant’s Figs. 7, 8a and 9, the regions (the 12-zone matrix) are constructed with intervening spaces with the contrasting colors, and there is no way to form a solid block with the regions due to the separation of the regions in the 12-zone matrix (See Fig. 9 of applicant’s specification).

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-7, and 21-42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

**Claims 21-28:**

The claim 21 recites the claim limitation of “**a plurality of regions that abut one another thereby eliminating intervening spaces to form a solid block.**” This new claim limitation was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

For example, in Paragraph 0030 of applicant’s specification, it is stated, “there may be 19 different features needed to compose all the letters of...a template or matrix is created based on the entire set of features, by **abutting the features** to each other in such a way that each feature can be **visually distinguished** from the others. *This template may then be overlayed with a smaller, second matrix (e.g., a 12-zone matrix)*...Each character is indicated by a respective selection of one or more (and in most cases, no more than two) regions or zones in a matrix.” In Paragraph 0038, it is stated, “almost all of the assembled features are ‘stretched’ so that they abut one another, eliminating the intervening spaces and thereby resulting in a stretched matrix 208 in Fig. 2. Note also that the stretched features become the boundaries of the regions in the matrix 208 in such a way that most of the regions line up in rows and columns.” However, Fig. 2 shows 19 features. *The 19 features, rather than the selection regions*, have been stretched so that they abut one another, eliminating the intervening spaces. Moreover, according to applicant’s Figs. 7, 8a and 9, the regions (the 12-zone matrix) are constructed with intervening spaces with the contrasting colors, and there is no way to form a solid block with the regions due to the separation of the regions in the 12-zone matrix (See Fig. 9 of applicant’s specification). The claims 22-28 depend upon the claim 21 and are rejected due to their dependency on the claim 21.

**Claims 1-7:**

Art Unit: 2628

The claim 1 recites the new claim limitation of “the plurality of zones abut one another, thereby eliminating intervening spaces to form a solid block”. The claim 1 is subject to the same rationale of rejection set forth in the claim 21. The claims 2-7 depend upon the claim 1 and are rejected due to their dependency on the claim 1.

**Claims 29-42:**

Claims 29-42 are subject to the same rationale of rejection set forth in the claims 21-28 discussed above.

Claims 1-9, 21-33 and 41-42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

**Claims 8-9:**

The claim 8 recites “**instructing a user to select a combination, of one or more of said plurality of selection zones, that represents the user’s desired alphanumeric character**”.

According applicant’s specification, for example, Fig. 7, the combination is selected and the remainder represents the user’s desired alphanumeric character, not the combination. Applicant clearly failed to comply with the written description requirement that requires the selected combination to represent the user’s desired alphanumeric character. Applicant’s claim 8 further recites “wherein the mapping is based on a) representing each character as a juxtaposition of

Art Unit: 2628

some of a plurality of open and closed curves, **the plurality of selection zones being fewer than the plurality of curves.**” However, the plurality of selection zones is not fewer than the plurality of curves, according to applicant’s specification. For example, for the letter “a”, there are two selection zones (see Fig. 7), but there are two curves associated with the letter “a” (See applicant’s claim 27). Therefore, the metes and bounds of the coverage of at least base claim 8 cannot be ascertained. The claim 9 depends upon the claim 8 and is rejected due to its dependency on the claim 8.

#### **Claims 1-7:**

For example, the base claim 1 recites “a user’s selection of a combination of one or more zones from a plurality of zones”. A combination of one or more zones are selected means that any combination of one or more zones could be selected by the user, as opposed to only some specific combination of zones from a plurality of combinations of one or more zones could be selected. There are so many combinations that can be constructed by selecting one or more zones from the plurality of zones. Not all combinations are selectable so that the remainder resembles a desired character. For example, applicant’s Fig. 7 only presents a limited number of combinations that are selectable, i.e., a total of 36 combinations that are selectable. Therefore, the metes and bounds of the coverage of at least base claim 1 cannot be ascertained. The claims 2-7 depend upon the claim 1 and are rejected due to their dependency on the claim 1.

#### **Claims 21-28:**

The claim 21 recites “**maps each of a plurality of alphanumeric characters to a respective selection of one or more regions from a plurality of regions**”. For the same reasons discussed above, the remainder, rather than the selection, is mapped to each of a plurality of

Art Unit: 2628

alphanumeric characters. Therefore, the metes and bounds of the coverage of at least base claim 21 cannot be ascertained. The claims 22-28 depend upon the claim 21 and are rejected due to their dependency on the claim 21.

**Claims 29-33:**

The claim 29 recites “logic that implements **an association between each of a plurality of alphanumeric characters and a respective combination of one or more regions selected from a matrix of regions** that have been defined on the display screen”. For the same reasons discussed above, the remainder, rather than the selection, is mapped to each of a plurality of alphanumeric characters. The association is between the remainder, rather than the selection/combination of one or more regions selected from a matrix of regions and each of a plurality of alphanumeric characters. As evidenced in the claims 31-32, each of the alphanumeric characters is associated with the remainder, not the selected regions. Therefore, the metes and bounds of the coverage of at least base claim 29 cannot be ascertained. The claims 30-33 depend upon the claim 29 and are rejected due to their dependency on the claim 29.

**Claims 41-42:**

The claims 41-42 are subject to the same rationale of rejection set forth in the claims 1 and 8 discussed above.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.



Art Unit: 2628

Claims 1-7 and 21-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claims 21-28:**

The claim 21 recites the claim limitation of “a plurality of regions that abut one another thereby eliminating intervening spaces to form a solid block.” This new claim limitation failed to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

*As discussed above, the features, rather than the regions, abut one another, eliminating the intervening spaces. The claims 22-28 depend upon the claim 21 and are rejected due to their dependency on the claim 21.*

**Claims 1-7:**

The claim 1 recites the new claim limitation of “the plurality of zones abut one another, thereby eliminating intervening spaces to form a solid block”. The claim 1 is subject to the same rationale of rejection set forth in the claim 21. The claims 2-7 depend upon the claim 1 and are rejected due to their dependency on the claim 1.

**Claims 29-42:**

Claims 29-42 are subject to the same rationale of rejection set forth in the claims 21-28 discussed above.

Art Unit: 2628

Claims 1-9, 21-33 and 41-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention for additional reasons set forth below.

**Claims 8-9:**

The claim 8 recites **“instructing a user to select a combination, of one or more of said plurality of selection zones, that represents the user’s desired alphanumeric character”**.

The remainder represents the user’s desired alphanumeric character, not the combination. The claim 8 failed to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant’s claim 8 further recites **“wherein the mapping is based on a representing each character as a juxtaposition of some of a plurality of open and closed curves, the plurality of selection zones being fewer than the plurality of curves.”** However, the plurality of selection zones are not fewer than the plurality of curves. For example, for the letter “a”, there are two selection zones (see Fig. 7), but there are two curves associated with the letter “a” (See applicant’s claim 27). The claim 9 depends upon the claim 8 and is rejected due to its dependency on the claim 8.

**Claims 1-7:**

For example, the base claim 1 recites **“a user’s selection of a combination of one or more zones from a plurality of zones”**. A combination of one or more zones are selected means that any combination of one or more zones could be selected by the user, as opposed to only some specific combination of zones from a plurality of combinations of one or more zones could be selected. There are so many combinations that can be constructed by selecting one or more zones

from the plurality of zones. Not all combinations are selectable so that the remainder resembles a desired character. For example, applicant's Fig. 7 only presents a limited number of combinations that are selectable, i.e., a total of 36 combinations that are selectable. The claims 2-7 depend upon the claim 1 and are rejected due to their dependency on the claim 1.

**Claims 21-28:**

The claim 21 recites **"maps each of a plurality of alphanumeric characters to a respective selection of one or more regions from a plurality of regions"**. For the same reasons discussed above, the remainder, rather than the selection, is mapped to each of a plurality of alphanumeric characters. The claims 22-28 depend upon the claim 21 and are rejected due to their dependency on the claim 21.

**Claims 29-33:**

The claim 29 recites **"logic that implements an association between each of a plurality of alphanumeric characters and a respective combination of one or more regions selected from a matrix of regions that have been defined on the display screen"**. For the same reasons discussed above, the remainder, rather than the selection, is mapped to each of a plurality of alphanumeric characters. The association is between the remainder, rather than the selection/combination of one or more regions selected from a matrix of regions and each of a plurality of alphanumeric characters. As evidenced in the claims 31-32, each of the alphanumeric characters is associated with the remainder, not the selected regions. The claims 30-33 depend upon the claim 29 and are rejected due to their dependency on the claim 29.

**Claims 41-42:**

Art Unit: 2628

The claims 41-42 are subject to the same rationale of rejection set forth in the claims 1 and 8 discussed above.

**Due to the §112 rejection discussed above, the limitations set forth in the claim invention carry no patentable weights for the reasons of the enablement and description requirements set forth in the §112 rejection. Moreover, the claim invention is subject to the broadest reasonable interpretation consistent with applicant's specification.**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 and 21-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramian in view of Curtin et al US Patent No. 4,727,357 (hereinafter Curtin).

Re Claims 1, 21-26, 29-30, 33, 34-42:

(a) Ramian teaches a method for generating a desired alphanumeric character, comprising:

Receiving a user's selection of a combination of one or more zones from a plurality of zones, wherein the plurality of zones abut one another, thereby eliminating intervening spaces to

form a solid block (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149); and

Contrasting the combination with the remainder of said plurality of zones so that the combination is essentially selected leaving behind a graphic symbol that resembles the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

(b) However, Ramian does not implicitly teach, “the remainder resembles the desired character”.

(c) Curtin teaches the claim limitation of “the combination is essentially removed leaving behind a graphic symbol that resembles the desired character”. For example, Curtin discloses in Fig. 6 un-selecting the bars 14 and 16 so that the remainder bars 6, 8, 10, 12, 20, 18, 22 and 24 represent or resemble the desired character “A”. See column 2, lines 46-67 and column 3, lines 1-20. It is stated, “...a user contacts selected normally activated bars to turn off their lights. It has been found in developing the present invention that **the alphanumeric characters can be more rapidly formed by placing at least the bars forming the outer box pattern and possibly the bars extending horizontally across such box pattern in a normally activated condition. In this manner, it normally takes fewer key strokes to form each alphanumeric character.**” That is to say, the bars, 6, 8, 10, 12, 20, 18, 22, 24, 14, 16 are normally lighted. The alphanumeric character “A” is formed with a fewer key strokes on the bars 14, 16 to deactivate the lights. See also column 4, lines 30-67 and column 5, lines 34-44.

(d) It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Ramain’s invention because Ramain’s remainder of the

Art Unit: 2628

plurality of zones corresponds to applicant's combination of one or more zones from the plurality of zones and Romain's selection of the plurality of zones corresponds to applicant's remainder of the plurality of zones. Romain teaches that, if the combination is contrasted with the remainder of said plurality of zones. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of zones by illuminating the curves within such combination which must be contrasted with the remainder of zones so that the drawn curves resemble the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

On the other hand, in Romain, by positively illuminating the curves within a combination of one or more zones from a plurality of zones, Romain thereby selects the remainder of the plurality of zones as applicant's combination of one or more zones from a plurality of zones and therefore Romain implicitly teaches contrasting Romain's remainder with the Romain's combination of said plurality of zones so that the remainder is essentially removed leaving behind a graphic symbol that resembles the desired character. It is noted that Romain's remainder corresponds to applicant's combination and Romain's combination corresponds to applicant's remainder. Applicant has effectively reversed the Romain's parts. It is also noted that both remainder and the combination represent one or more zones from a plurality of zones and the remainder and the combination added together are the same as the plurality of zones.

Romain teaches selecting curves and traces along a selected plurality of zones for generating graphic symbols with the stylus so that the combination of the plurality of zones indicate the desired character by illuminating the selected curves and traces with the selected plurality of zones and therefore the remainder can be essentially removed leaving behind a

Art Unit: 2628

graphic symbol that resembles the desired character because the remainder of the zones except the illuminated curves/traces is not highlighted and thus is also selected. Therefore, the remainder may also be the combination and vice versa.

Moreover, Ramian teaches the combination is contrasted with the remainder area of said plurality of zones not including the illuminated curves and traces. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of curves/traces within the zones by illuminating the curves within such combination which must be contrasted with the remainder area of zones so that the drawn curves resemble the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

Therefore, in view of Curtin's patent, which has been issued long time ago, one of the ordinary skill in the art would have used Curtin's idea of selecting a combination of one or more bars to be deactivated while the remainder remain illuminated. Having the combined teaching of Curtin and Ramain, one of the ordinary skill in the art would have selected a combination of one or more zones of Ramain so that the remainder is illuminated while the combination of one or more zones being selected to be un-illuminated or deactivated from illumination in view of Curtin so that the combination is essentially removed leaving behind a graphic symbol that resembles the desired character such as the character "A" (See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44).

(e) One of the ordinary skill in the art would have been motivated to construct a method for generating alphanumeric characters in accordance with Curtin's selection of the combination of bars so that the remainder represents the desired alphanumeric character (See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44).

Claim 2:

The claim 2 encompasses the same scope of invention as that of the claim 1 except additional claim limitation that the plurality of zones are arranged so that the periphery around them is the maximum extent of every graphic symbol that appears when a combination of one or more zones is contrasted. However, Ramian and Curtin further disclose the claim limitation of the plurality of zones are arranged so that the periphery around them is the maximum extent of every graphic symbol that appears when a combination of one or more zones is contrasted (*Ramain teaches selecting curves and traces along a selected plurality of zones for generating graphic symbols with the stylus so that the remainder of the unselected areas of the plurality of zones indicate the desired character by illuminating the selected curves and traces with the selected plurality of zones and therefore the remainder resembles the desired character because the remainder of the zones except the illuminated curves/traces is not highlighted. Moreover, Ramian teaches the combination is contrasted with the remainder area of said plurality of zones not including the illuminated curves and traces. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective*



*combination of curves/traces within the zones by illuminating the curves within such combination which must be contrasted with the remainder area of zones so that the drawn curves resemble the desired character. See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.*

Claim 3:

The claim 3 encompasses the same scope of invention as that of the claim 1 except additional claim limitation of the plurality of zones forming a matrix of solid elements that are of the same color. However, Ramian and Curtin further disclose the claim limitation of the plurality of zones forming a matrix of solid elements that are of the same color (Figs. 1-3). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Claim 4:

The claim 4 encompasses the same scope of invention as that of the claim 3 except additional claim limitation of the matrix having twelve zones arranged in four rows and three columns. However, Ramian and Curtin further disclose the claim limitation of the matrix having twelve zones arranged in four rows and three columns (Figs. 1-2). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for

Art Unit: 2628

processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Claim 5:

The claim 5 encompasses the same scope of invention as that of the claim 3 except additional claim limitation that the respective combination of zones has no more than two zones, and wherein each one of the 26 letters of the English alphabet and 10 decimal numerals is represented by a different combination of zones. However, Ramian and Curtin further disclose the claim limitation that the respective combination of zones has no more than two zones, and wherein each one of the 26 letters of the English alphabet and 10 decimal numerals is represented by a different combination of zones (*This is because the character "z" can be traced within one zone of the matrix and all the English alphabets and 10 decimal numerals can be represented by the matrix; See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 0139, 0147, 0149*). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Claim 6:

The claim 6 encompasses the same scope of invention as that of the claim 3 except additional claim limitation of providing a plurality of mnemonic aids that represent a plurality of different alphanumeric characters, wherein each aid being depicted by a matrix of the plurality of

Art Unit: 2628

zones that shows the respective combination. However, Ramian and Curtin further disclose the claim limitation of providing a plurality of mnemonic aids that represent a plurality of different alphanumeric characters, wherein each aid being depicted by a matrix of the plurality of zones that shows the respective combination (*See Figs. 1-3; Paragraph 007, 0030, 0043, 0072, 0085, 0108, 0109, 0130, 0139, 0147, 0149*). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

## Claim 7:

The claim 7 encompasses the same scope of invention as that of the claim 1 except additional claim limitation of visually contrasting a combination of one or more of said plurality of zones with unselected ones of said plurality of zones, as the combination is being selected by a person. However, Ramian and Curtin further disclose the claim limitation of visually contrasting a combination of one or more of said plurality of zones with unselected ones of said plurality of zones, as the combination is being selected by a person. Ramian discloses visually contrasting the combination of zones with the selected curves/traces illuminated with the unselected zones un-illuminated wherein the combination of the zones are selected by a person with for example a stylus (*See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 0139, 0147, 0149*). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

## Claim 8:

Ramian and Curtin teach a method for generating alphanumeric characters, comprising:

Providing a plurality of selection zones (*See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 0139, 0147, 0149*);

Instructing a user to select a combination, of one or more of said plurality of selection zones, that represents the user's desired alphanumeric character (the user selects a plurality of selection zones by a stylus by drawing curves/traces within the selection zones that represent the user's desired character; *See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 0139, 0147, 0149*);

Providing a mapping between said selected combination and the desired alphanumeric character (e.g., Paragraph 0130), wherein the mapping is based on (a) representing each character as a juxtaposition of some of a plurality of open and closed curves (Figs. 1-2), the plurality of selection zones being fewer than the plurality of curves (Figs. 1-2 wherein the characters "a" and "z" being drawn with more curves than the selection zones), (b) creating a template containing all of the plurality of open and closed curves (e.g., Paragraph 0130), and c) aligning the template with the plurality of selection zones (e.g., Paragraph 0130).

See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Claim 9:

The claim 9 encompasses the same scope of invention as that of the claim 8 except additional claim limitation of enabling the user to select one of the selection zones in the

Art Unit: 2628

combination, by one of a) depressing a respective push-button and (b) touching a respective region in a touch-sensitive surface. However, Ramian and Curtin teach enabling the user to select one of the zones by using a stylus in a touch-sensitive surface (*Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 0139, 0147, 0149*). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Re Claims 27-28 and 31-32:

Ramain and Curtin teach that, if the combination is contrasted with the remainder of said plurality of zones. For example, the characters “a” and “z” in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of zones by illuminating the curves within such combination which must be contrasted with the remainder of zones so that the drawn the curves resemble the desired character (See *Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 0139, 0147, 0149*). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected zones for generating graphic symbols with the stylus so that the remainder of the unselected zones resembles the desired character because Ramain teaches selecting curves and traces along a selected plurality of zones for generating graphic symbols

with the stylus so that the remainder of the unselected areas of the plurality of zones indicate the desired character by illuminating the selected curves and traces with the selected plurality of zones and therefore the remainder resembles the desired character because the remainder of the zones except the illuminated curves/traces is not highlighted. Moreover, Ramian teaches the combination is contrasted with the remainder area of said plurality of zones not including the illuminated curves and traces. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of curves/traces within the zones by illuminating the curves within such combination which must be contrasted with the remainder area of zones so that the drawn curves resemble the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

Curtin teaches the claim limitation of "the combination is essentially removed leaving behind a graphic symbol that resembles the desired character". For example, Curtin discloses in Fig. 6 un-selecting the bars 14 and 16 so that the remainder bars 6, 8, 10, 12, 20, 18, 22 and 24 represent or resemble the desired character "A". See column 2, lines 46-67 and column 3, lines 1-20. It is stated, **"...a user contacts selected normally activated bars to turn off their lights.** It has been found in developing the present invention that **the alphanumeric characters can be more rapidly formed by placing at least the bars forming the outer box pattern and possibly the bars extending horizontally across such box pattern in a normally activated condition. In this manner, it normally takes fewer key strokes to form each alphanumeric character.**" That is to say, the bars, 6, 8, 10, 12, 20, 18, 22, 24, 14, 16 are normally lighted. The alphanumeric character "A" is formed with a fewer key strokes on the bars 14, 16 to deactivate the lights. See also column 4, lines 30-67 and column 5, lines 34-44.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Romain's invention because Romain's remainder of the plurality of zones corresponds to applicant's combination of one or more zones from the plurality of zones and Romain's selection of the plurality of zones corresponds to applicant's remainder of the plurality of zones. Romain teaches that, if the combination is contrasted with the remainder of said plurality of zones. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of zones by illuminating the curves within such combination which must be contrasted with the remainder of zones so that the drawn curves resemble the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

On the other hand, in Romain, by positively illuminating the curves within a combination of one or more zones from a plurality of zones, Romain thereby selects the remainder of the plurality of zones as applicant's combination of one or more zones from a plurality of zones and therefore Romain implicitly teaches contrasting Romain's remainder with the Romain's combination of said plurality of zones so that the remainder is essentially removed leaving behind a graphic symbol that resembles the desired character. It is noted that Romain's remainder corresponds to applicant's combination and Romain's combination corresponds to applicant's remainder. Applicant has effectively reversed the Romain's parts. It is also noted that both remainder and the combination represent one or more zones from a plurality of zones and the remainder and the combination added together are the same as the plurality of zones.

Romain teaches selecting curves and traces along a selected plurality of zones for generating graphic symbols with the stylus so that the combination of the plurality of zones

Art Unit: 2628

indicate the desired character by illuminating the selected curves and traces with the selected plurality of zones and therefore the remainder can be essentially removed leaving behind a graphic symbol that resembles the desired character because the remainder of the zones except the illuminated curves/traces is not highlighted and thus is also selected. Therefore, the remainder may also be the combination and vice versa.

Moreover, Ramian teaches the combination is contrasted with the remainder area of said plurality of zones not including the illuminated curves and traces. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of curves/traces within the zones by illuminating the curves within such combination which must be contrasted with the remainder area of zones so that the drawn curves resemble the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

Therefore, in view of Curtin's patent, which has been issued long time ago, one of the ordinary skill in the art would have used Curtin's idea of selecting a combination of one or more bars to be deactivated while the remainder remain illuminated. Having the combined teaching of Curtin and Ramain, one of the ordinary skill in the art would have selected a combination of one or more zones of Ramain so that the remainder is illuminated while the combination of one or more zones being selected to be un-illuminated or deactivated from illumination in view of Curtin so that the combination is essentially removed leaving behind a graphic symbol that resembles the desired character such as the character "A" (See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for



Art Unit: 2628

processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44).

One of the ordinary skill in the art would have been motivated to construct a method for generating alphanumeric characters in accordance with Curtin's selection of the combination of bars so that the remainder represents the desired alphanumeric character (See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44).

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (571) 272-7665. The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (571) 272-7664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jcw



KEE M. TUNG  
SUPERVISORY PATENT EXAMINER